REMARKS

The Office Action rejected our claims with the reasoning set forth on Paragraph 1 of Page 2 of our Final rejection. The remaining paragraphs were simply a repeat of the same rejection over *Yamane et al.* (U.S. Patent No. 6,393,196) verbatim, copied from the First Office Action.

The Examiner acknowledged our arguments wherein an auxiliary content such as an auxiliary program could be recorded on an optical disc, together with q basic movie AV work. In this regard, applicant brought to the Examiner's attention Figure 21, wherein a picture plane moving image could be based upon the AV movie work as a background image while a computer-generated image of an airplane, for example, to be used as a foreground image, could constitute a computer program, recorded in an interleave unit in the digital stream before the play of the movie image from the AV work.

The user could "fly" the foreground CG airplane image over the movie background image as a combined image by initially buffering the plane images before the movie AV work is reached and then <u>simultaneously display</u> the combined image in a computer game as an optimal feature of the AV movie work.

Applicant would point the Examiner's attention specifically to the claim language used in Claim 1, which states as follows:

> the interleave unit includes one of (a) a program to be <u>synchronized with playback of the *i*th segment</u> and (b) data <u>to be displayed synchronously with playback of the *i*th segment</u>.

As can be appreciated by numerous different examples set forth in our specification, it is possible to create a library from the interleave units that are pre-created before the playing of the desired segment and as shown in Figure 49, the image data from such a library could be decoded

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to create an image plane while the video decoder can create the picture plane from the AV stream, that could be mixed to create a <u>synchronized playback and display</u>.

Our specification clearly defines synchronization and the advantages of a creation of these libraries from interleave units that can be utilized in a player with a limited buffer memory capability. Additionally, the term "synchronous" is defined in *Webster's II New Collegiate Dictionary*, as follows:

> **syn·chro·nous** *adj.* [Llat. *synchronos* < Gk. *sunkhronos* : *sun-*, same + *khronos*, time.] 1. Happening at the same time. 2. Moving or operating at the same rate. 3. a. Having identical periods. b. Having identical period and phase.

Accordingly, as used in our Claim 1, the term <u>synchronously</u> refers to "at the same time." That is, the library created from the interleave unit is recorded in the digital stream represented on the optical disc "in front of an *i*th segment to be played back." The duration of its viability for supporting the optional feature is provided as an enhancement, for example of additional information associated with the sale of a movie on a BD ROM. Thus, we cab provide desired optional features in the digital stream independent of the original editing of the movie work and time periods can be recorded on the viability of the interleave units and potential deletion by overwriting of an associated memory utilized in the playback control engine.

As set forth in our dependent Claim 2, we have a transitory storage time in the memory whereupon it will then be deleted when the actuation of the computer game play is not desired.

These features were never addressed nor given their appropriate meaning in interpreting our claims.

It is believed that this interpretation of our independent Claim 1 and corresponding correlation with the dependent claims have not been given appropriate patentable weight.

"'[T]he dispositive question regarding anticipation is whether one skilled in the art would reasonably understand or infer from the prior art reference's teaching that every claim [limitation] was disclosed in that single reference.' *Dayco Prods., Inc. v. Total Containment, Inc.*, F.3d 1358, 1368 (Fed. Cir. 2003).

The present applicant is also the owner of the *Yamane et al.* reference, and the present claims were drafted with such technology in mind that was described, for example, in our own specification on Page 37, Lines 2-25. The only synchronization, however, suggested in the *Yamane et al.* reference was synchronization of the AV data with timing signals to accommodate a delay time, TD that was required by a source stream buffer in an <u>authoring procedure</u>. As described in Column 8, Lines 51-55, the *Yamane et al.* system encoding parameter data and start/stop timing signals was simply to permit a system encoder to apply a "multiplexing coding process to generate a time edited unit (VOB)."

The Office Action specifically referred to Figure 36 as its principal teaching of the structure of our invention.

Applicant respectfully submits that Figure 36 schematically teaches editing capability in formatting the master disc that would permit a <u>branching of the VOBs sequentially</u> and <u>not synchronously played at the same time</u>. Figure 36 basically taught two alternative branching VOB-K and VOB-M. Note, as shown in Figure 10 of *Yamane et al.* this branching scheme could be represented as a choice of multi angle scene periods to provide an alternative choice to the user as to the view of a particular movie sequence.

Fig.10
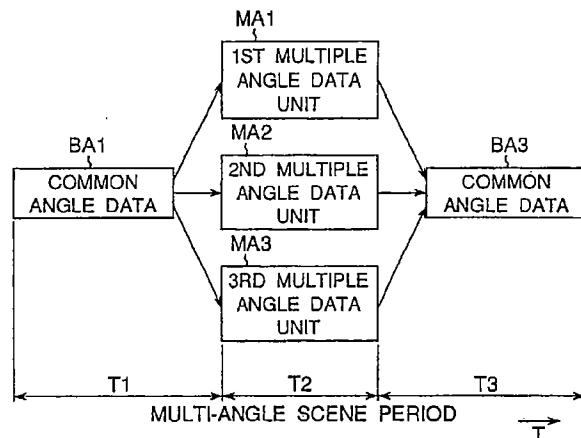
In this regard, the common angle data for a continued sequential playing of the movie scenes are considered to be VOBs-A, VOBs-C and VOBs-E as follows:
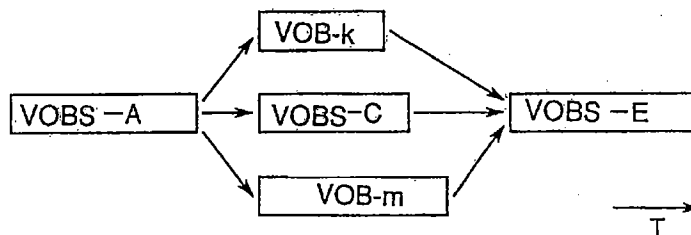
Schematically, the sequential and not simultaneously playing of the VOBs can be seen from the following modified Figure 36. Thus, the VOB-k and VOB-m are only mixed at interleaved block regions in the digital stream and decoded and combined in a buffer memory as one full VOB, e.g. 4 seconds of minimum playtime, Column 17, Line 22. Only one sequence of either the VOB cell number k or VOB cell number m would actually be played if, for example, one of the multi angled views is selected. Note, the playing will still be in a sequence of either k1 through k4 or m1 through m4, and will not be played, as defined in our Claim 1, in a synchronous manner with a playback of an *i*th segment. That is, at the same time as the playback of the *i*th segment. The Office Action is misinterpreting a VOB as an *i*th segment in our claims,

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and it is believed that the above explanation associated with Figure 36 illustrates clearly the difference of the present invention.
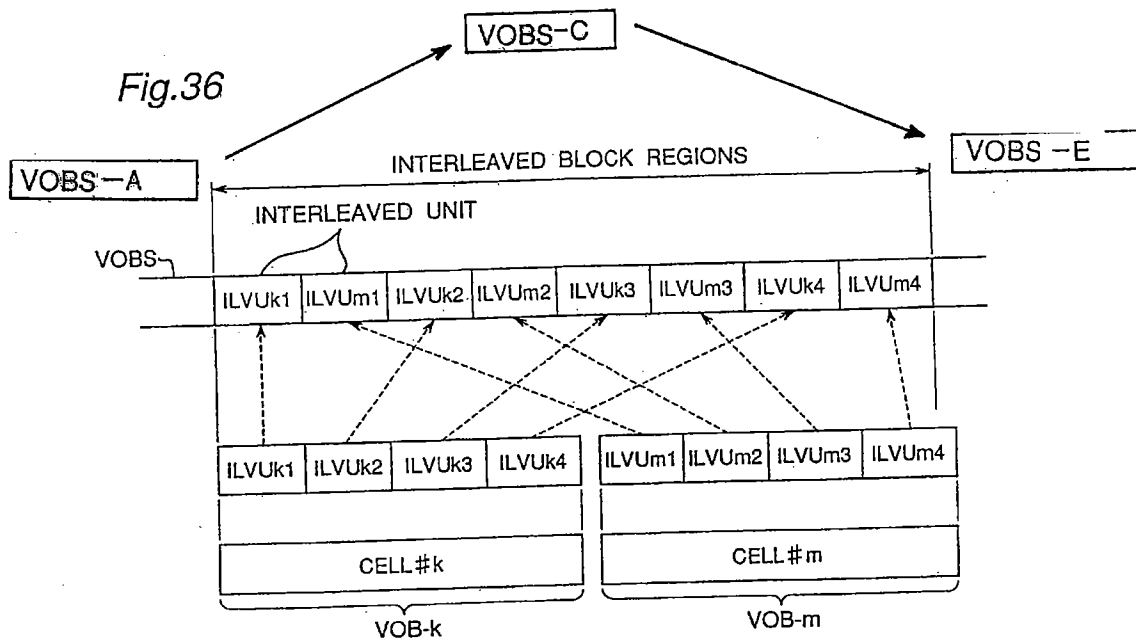
Fig.36

Figure 36 of *Yamane et al.* shows the interleaved VOB segments. Specifically, Figure 36 shows a process of branching from one scene (the last VOB) to two different scenes (VOB-k and VOB-m). According to *Yamane et al.*, VOB-k and VOB-m are each divided into segments called interleaved units. The interleaved units of VOB-k and the interleaved units of VOB-m are alternately arrayed. In the interleaved block regions, multi-angle reproduction can be performed by selecting and reproducing one of (i) the interleaved units belonging to VOB-k or (ii) the interleaved units belonging to VOB-m. The decoder and buffer will construct the relisted VOB and only display that VOB by itself.

On the other hand, in the present application, a digital stream is divided into segments. An interleave unit of the present application refers to (i) a program executed in synchronization

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with one of the segments, or (ii) a unit of data displayed in synchronization with one of the segments. Here, each interleave unit is recorded in front of the corresponding segment.

Yamane et al. neither discloses nor suggests the above-described disclosures of the present application, i.e., the segments generated by dividing the digital stream, and each program or each data that is arranged and recorded in front of the corresponding segment.

The invention of our independent Claims 1, 15 and 35-37 and the invention of *Yamane et al.* disclose different targets for synchronization.

Yamane et al. disclosed that a video signal St1, a subpicture signal St3 and an audio signal St5 are encoded in accordance with the scenario data St7 in synchronization with timing signals St9, St11 and St13, respectively (the timing signals St9, St11 and St13 correspond to the generated video, subpicture and audio, respectively). In other words, *Yamane et al.* merely discloses that each stream is in synchronization with the corresponding encoding signal.
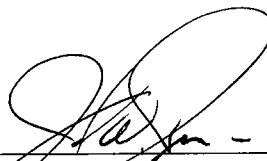
On the other hand, the present application discloses the following feature. Of the segments included in the digital stream, the *i*th segment and the interleave unit recorded in front of the *i*th segment are displayed together in synchronization with each other. Stated another way, a segment and an interleave unit to be brought into synchronization with each other are both recorded in the same digital stream and are to be played back and displayed synchronously.

In summary, it is believed that with the proper understanding of the terminology used in our claims and the inability of the *Yamane et al.* reference to teach the same claim features, that the present application is now in condition for allowance.

If the Examiner believes a conference with the SPE and the Examiner would be of assistance in furthering the prosecution of the case, the undersigned attorney can be contacted at the listed telephone number.

Very truly yours,

SNELL & WILMER L.L.P.

Joseph W. Price
Registration No. 25,124
600 Anton Boulevard, Suite 1400
Costa Mesa, California 92626-7689
Telephone: (714) 427-7420
Facsimile: (714) 427-7799

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